

[OPTICAL SYSTEM OF FINGERPRINT IMAGE CAPTURE APPARATUS]

Abstract of Disclosure

An optical system of fingerprint image capture apparatus comprises an optical platen substantially in a flat shape, a source light, and an image sensor. The optical platen includes a generally planar contact face having a dull rough surface against which a finger is placed, and a generally planar viewing face at the side of which is placed the image sensor and the light source. An incident light from the light source that strikes a region of the contact surface touched by a fingerprint ridge is scattered and passes through the viewing face to be substantially captured by the image sensor. An incident light that strikes a region of the contact face corresponding to a fingerprint valley is scattered and further passes out of the optical prism by refraction. The fingerprint ridge thereby appears as brighter regions and the fingerprint valley as darker regions.

Figures